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High population densities of Garden Tiger Moth caterpillars *Arctia caja* L. (Lep.: Arctiidae) on Handa Island, Sutherland.

For a number of years, small numbers of caterpillars of the Garden Tiger Moth *Arctia caja* L. have been recorded by seasonal wardens of the Scottish Wildlife Trust on Handa Island Wildlife Reserve, north-west Scotland. In 1995 and 1996 numbers were unusually high. So dramatic was the black carpet of caterpillars, that it attracted the attention of the national media (e.g. Chalmers, "Something is aflutter on island people left in 1848", *Daily Mail*, 10th June, 1995, page 3). High densities of *Arctia caja* caterpillars have been seen elsewhere, on similar dune grasslands on the west coast of Scotland (Mark Young, *pers. comm.*). Data was collected on population densities and foodplant preferences in order to provide baseline information for comparison with other sites and future years on Handa. The population on Handa was confined to two, contiguous, and relatively homogenous dune grassland areas (mainly SD6 and SD7 in Rodwell, J (1991 et seq) *British Plant Communities*. 5 Vols. Cambridge University Press).

On the 2.v.1995, 60 x 1m² stratified random quadrats were sampled throughout the main area of distribution to estimate density of caterpillars. Within this area there were two density classes: "high", within a dune grassland area adjacent to the open dunes, and "low", within a band of neutral grassland surrounding the dune grassland to the west. The boundary between the two classes was discrete enough to be delineated with the naked eye and mapped.

On the 12.v.96, 100 x 1m² stratified random quadrats were sampled (60 in the "high" density area, 40 in the "low" density area). The two areas were again discrete. Also during 1996, the foodplants of the caterpillars were recorded along 2 x 30m transects in the high density area, as well as more casually over the spring and early summer. The results are summarised below.

1995	High density	20.90/m ²	1996	High density	8.75/m ²
	Low density	4.19/m ²		Low density	2.23/m ²
	Mean	11.40/m ²		Mean	5.49/m ²

On the 2.v.95, the entire population was confined to an area of neutral grassland and open dune connecting two beaches on the south-east of the island (approximately 80,000m²). During the next few weeks of 1995 the caterpillars spread to cover a much wider area, mostly neutral grassland with occasional wet heath and willow *Salix aurita* scrub, where they occurred at lower densities.

The distribution on 12.v.96 was similar to the final extent covered in 1995. The area of highest density was again associated with open dunes bordering neutral grassland.

The transects showed red fescue *Festuca rubra* to be the favoured host plant in the highest density areas, although in other areas caterpillars had almost completely defoliated patches of willow scrub *Salix aurita* and broad-leaved dock *Rumex obtusifolius*. The high figure for *Festuca rubra* is probably related to its dominance within the sward.

In 1993, most sheep grazing was removed from Handa, with a few remaining stock removed in 1994. Since this time the only significant grazing mammal has been the rabbit. The population explosion of *Arctia caja* caterpillars on Handa seems in some way to be related to this recent change in management on the reserve.

It should be noted that despite the massive number of caterpillars present in early summer, most die before they pupate. The high mortality is probably due to a fungal or viral pathogen (Phillip Entwistle, *pers. comm.*) which affects caterpillars of all ages and sizes.— JONATHAN HUGHES and JULIE STONEMAN, 11a King Street, Embo, Sutherland IV25 3PU.

***Prionus coriarius* (Linn.) (Col.: Cerambycidae) in Hampshire**

On 8 August 1996 I took a single male specimen of *Prionus coriarius* at Denny Wood, New Forest, Hampshire. I caught it in my hand as it flew noisily across a clearing in late afternoon. In spite of two further visits I failed to discover others. According to Hyman & Parsons (1992) (*Review of the scarce and threatened Coleoptera of Great Britain*. Part 1., UK Joint Nature Conservation Committee, Peterborough), *P. coriarius* come under category *Notable A*. Prior to 1970 it was reported from all the southern counties, most of the midlands as far north as Cheshire and Lancashire, and from Glamorgan and Denbighshire. Since 1970 it has only been reported from East and West Sussex, East and West Kent, Surrey, Berkshire, East Suffolk and Flintshire.

I would be most interested to know if this species is increasing its range, or if my single specimen does no more than highlight under reporting of this spectacular beetle.— DR MICHAEL A. SALMON, Avon Lodge, Woodgreen, Hampshire SP6 2AU.